

REMARKS

Claims 1-17 and 26-44 are currently pending in the subject application and are presently under consideration. Claims 1-2, 5, 8, 26-27, 29-30, 36, 39, 41-42, 43, and 44 have been amended as shown on pp. 2-13 of the Reply. In addition, claims 3-4 have been cancelled without prejudice. Favorable reconsideration of the subject patent application is respectfully requested in view of the comments and amendments herein.

I. Rejection of Claims 1, 26, 30, 36, 39, 42, 43, and 44 Under 35 U.S.C §112

Claims 1, 26, 30, 36, 39, 42, 43, and 44 stand rejected under 35 U.S.C. §112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular, the Examiner has rejected claims 1, 26, 30, 36, 39, 42, 43, and 44 as allegedly including vague and indefinite language. Applicants have amended each of the rejected claims, as well as relevant dependent claims where necessary, so as to further clarify the language cited by the Examiner. Accordingly, Applicants respectfully request that this rejection be withdrawn.

II. Rejection of Claims 1-11, 13, 14, 16, 17, and 26-44 Under 35 U.S.C. §103(a)

Claims 1-11, 13, 14, 16, 17, and 26-44 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over US Patent Publication No. 2002/0060997 to Hwang (hereinafter "Hwang") in view of US Patent No. 6,904,555 to Nagase et al. (hereinafter "Nagase"). It is respectfully submitted that Hwang either alone or in combination with Nagase does not teach or suggest every limitation of the rejected claims. Moreover, Applicants respectfully submit that this rejection should be withdrawn for at least the following reasons.

To reject claims in an application under §103, an examiner must establish a *prima facie* case of obviousness. A *prima facie* case of obviousness is established by a showing of three basic criteria. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) *must teach or suggest all the claim limitations*. See MPEP §706.02(j). The teaching or suggestion to make

the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *See In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). (emphasis added).

Independent claims 1, 26, 30, 36, 39, 42, 43, and 44 generally recite a method and apparatus for facilitating automatic repeat requests in a multiple access wireless communication system. Without acquiescence to the Examiner's rejection, in the interest of expediting prosecution and clarifying the claimed subject matter, Applicants have amended independent claims 1, 26, 30, 36, 39, 42, 43, and 44. As amended, each of independent claims 1, 26, 30, 36, 39, 42, 43, and 44 recite similar aspects for processing acknowledgment (ACK) and negative acknowledgment (NAK) information. For instance, claim 1 recites *inter alia* "each NAK signal value, in [a] plurality of NAK signal values, having a NAK signal phase differing from any other one of the plurality of possible NAK signal values, ***the NAK signal phase between any two of the plurality of possible NAK values having a first quantitative difference less than a second quantitative difference between the NAK signal phase of any one of said plurality of possible NAK signal values and [an] ACK signal phase***, each of said plurality of possible NAK signal values corresponding to a different level of decoding success."

As amended, claim 1 thus recites a novel mechanism for readily distinguishing an ACK signal from any of a plurality of NAK signals. Indeed, as suggested by the specification, the phase of an ACK signal may be strategically shifted a substantial distance away from each of the plurality of NAK signals. (See e.g., Published Application, Paragraph 0104). For instance, in the exemplary implementations illustrated in each of Figures 9-10, a phase shift of approximately 180 degrees is shown between the ACK signal and the midpoint of the plurality of NAK signals.

Applicants respectfully submit that neither Hwang nor Nagase teach or suggest the aforementioned novel aspects of Applicants' invention as recited in claim 1 and similarly recited in each of independent claims 26, 30, 36, 39, 42, 43, and 44. As noted by the Examiner, Hwang does not teach "generating a first NAK signal having one of a plurality of possible NAK signal values, each of said plurality of possible NAK signal values corresponding to a different level of decoding success." Accordingly, nowhere does Hwang teach or suggest relative differences between the phases of the ACK and NAK signals.

Applicants respectfully submit that Nagase does not cure the deficiencies of Hwang.

Nagase generally relates to decoding turbo-coded data. Moreover, within the limited context of decoding turbo-coded data, Nagase teaches retransmitting data packets according to a number of discordant sign bits, wherein such retransmission may include retransmitting all or part of the data packets. (See e.g., Nagase, Column 11, lines 14-63). However, nowhere does Nagase teach or suggest manipulating the phases of such transmissions, nor does Nagase teach or suggest manipulating phases so as to readily distinguish a first group of transmissions (e.g., ACK signals) from a second group of transmissions (e.g., NAK signals).

Accordingly, neither Hwang nor Hwang discuss *a NAK signal phase between any two of a plurality of possible NAK values having a first quantitative difference less than a second quantitative difference between the NAK signal phase of any one of the plurality of possible NAK signal values and an ACK signal phase*, as recited in each of claims 1, 26, 30, 36, 39, 42, 43, and 44. For at least these reasons, Hwang either alone or in combination with Hwang fails to obviate Applicants' invention, as recited in independent claims 1, 26, 30, 36, 39, 42, 43, and 44 (and claims 2-11, 13-14, 16-17, 27-29, 31-35, 37-38, and 40-41 which respectively depend there from). Therefore, withdrawal of this rejection is respectfully requested.

III. Allowable Subject Matter

Claims 15 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicants appreciate the Examiner's statement of allowance. However, in view of the comments and amendments above, Applicants respectfully submit that the respective base claims for claim 15 are in condition for allowance. Accordingly, Applicants respectfully request that this objection be withdrawn.

The Examiner has stated that claim 12 is allowed. Applicants appreciate the Examiner's statement of allowance and submit that claim 12 has not been amended via this response. Accordingly, claim 12 remain in condition for allowance.

CONCLUSION

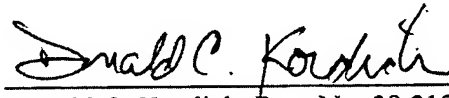
The present application is believed to be in condition for allowance in view of the above comments and amendments. A prompt action to such end is earnestly solicited.

Please charge any fees or overpayments that may be due with this response to Deposit Account No. 17-0026.

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicants' undersigned representative at the telephone number below.

Respectfully submitted,

By:



Donald C. Kordich, Reg. No. 38,213
(858) 658-5928

QUALCOMM Incorporated
Attn: Patent Department
5775 Morehouse Drive
San Diego, California 92121-1714
Telephone: (858) 658-5787
Facsimile: (858) 658-2502